REPORT
AND
SPECIFICATIONS
FOR

LAND RECLAMATION PROJECT

PENNSYLVANIA R.R. ROSELAKE YARDS

ST. CLAIR COUNTY, ILLINOIS

FEBUARY 19, 1968

PREPARED BY:

WASTE DISPOSAL CONSULTANTS

1919 HAMPTON AVE.
ST. LOUIS, MO.

P.O. BOX 246
ROLLA, MO.

WASTE DISPOSAL CONSULTANTS

Thomas S. Fry, Ph.D.
James B. Becker, P.E.
Frank A. Gerig Jr. Ph.D.

Please Reply To:

1919 Hampton Avenue
St. Louis, Missouri 63139

February 16, 1968

State of Illinois
Division of Public Health
Division of Sanitary Engineering
Springfield, Illinois

Attention: Mr. Clarence Klassin, Executive Secretary

Dear Mr. Klassin:

On behalf of our client, Metro Disposal Systems, Inc., 403 Murphy Building, East St. Louis, Illinois, we have prepared the accompanying report, specifications, and detailed engineering plans for the project referred to as "Land Reclamation Project", Pennsylvania Railroad-Roselake Yards, St. Clair County, Illinois.

The report, specifications, and plans transmitted herewith, follow the rules and regulations for refuse disposal sites and facilities dated 1966, your publication 4.716, in a general, but, in many cases, a very direct manner. It is our professional opinion that based upon the referenced rules and regulations and our professional experience that this site, the Pennsylvania Railroad Roselake Yard site in St. Clair County is adaptable to a very successful land reclamation project.

Our professional evaluation is not only based on the surveys, both topographic and soils surveys, but also on our actual personal evaluation of the site and its relation to the existing highway and other transportation facilities in the area that would serve not only the greater East St. Louis area, but also the metropolitan area of East St. Louis and St. Louis, Missouri.

It should also be noted here that Metro Disposal Systems, Inc., has retained our office to make the periodic inspections of this operation as set forth in the specifications, and report both to their office and to your office, our findings.

P.O. BOX 246
ROLLA, MISSOURI
(314) 364-2690

1919 HAMPTON AVENUE
ST. LOUIS, MISSOURI 63139
(314) Mission 4-1330

Should your office have any questions related to any part of this presentation, please feel free to contact our office, and we will make available to you any other additional information or data that we have concerning this project.

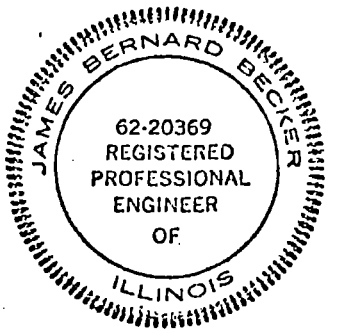
Very truly yours,

Thomas S. Fry

Thomas S. Fry, Ph. D.

James B. Becker

James B. Becker, P. E.



Frank A. Gerig, Jr.

Frank A. Gerig, Jr., Ph. D.

WASTE DISPOSAL CONSULTANTS

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Please Reply To:

ENGINEERING REPORT

LAND RECLAMATION PROJECT
PENNSYLVANIA RAILROAD-ROSELAKE YARDS
ST. CLAIR COUNTY, ILLINOIS

BY

WASTE DISPOSAL CONSULTANTS

FEBRUARY 19, 1968

P.O. BOX 246
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I. GENERAL

This report and the accompanying plans summarize the results of the engineering analysis and design associated with a proposed land reclamation project that is to be conducted by Metro Disposal Systems, Inc., of East St. Louis, Illinois.

The proposed land reclamation project is located on property owned by the Pennsylvania Railroad in the area known as the Roselake Yards in St. Clair County, Illinois. The specific piece of property being developed is north of the Eastward yard and is located between the City Limits of Fairmont on the east and the western railroad property on the west line, and is bounded on the north by Collinsville Road which was formerly designated as U. S. Route 40.

The project has been divided into two (2) separate parts designated as Phase "A" and Phase "B".

This report pertains primarily to the development of the area designated as Phase "A". It encompasses an area bounded on the east by the City Limits of Fairmont and on the west by the North-South drainage ditch approximately 2000 feet west of the City Limits of Fairmont.

Phase "B" portion of the project will be located on the remainder of the property and plans are being developed for operations in this area when Phase "A" is nearly completed.

II. SITE DRAINAGE

At the present time, the property is drained on the east by an open ditch which flows in a northwesterly direction approximately parallel to the Roselake Yard entrance road.

The site is drained on the west by an open ditch that is maintained and operated by the Levee District Board. This latter ditch has a small dike built on each side to contain the water during times of heavy run-off. The drainage of Route 40 (Collinsville Road) is not contained in ditches on the south side of the roadway, the water simply flows onto the railroad property and then into the appropriate ditch. An analysis of the drainage conditions at the site have been made and recommendations for procedures to accomplish drainage of the site during the construction operations are indicated on the plans. A recommended layout for final drainage ditches and details is also shown on the plans.

III. UTILITIES

Existing utilities at the site consist of a power line that is shown on the site plan. which traverses from the southwest corner of the site northeasterly to the right-of-way of Route 40.

III. UTILITIES - continued

A 30 inch diameter vitrified clay pipe parallels Route 40 and crosses the site in the northeast quadrant of the property. This vitrified clay pipe, which apparently is a sanitary sewer, has several manholes that have a top surface elevation at the existing ground level.

Prior to the construction operation in the vicinity of the sewer, it will be necessary to raise the level of these manhole covers.

There is an 8 inch water main that roughly parallels the highway pavement and is located on the right-of-way of existing Route 40.

It is anticipated that all of these utilities will be kept in continuous operation during the filling operations and the provisions must be made to protect these facilities.

IV. EXISTING ROADS ON THE SITE

Access to disposal areas within the site can be obtained on a road that enters the center of the site from Route 40. This unimproved road roughly parallels the power line across the site. There is also a narrow roadway that parallels the most northerly track of the Pennsylvania Railroad for the entire length of the property. This latter road is for the use of the Pennsylvania Railroad maintenance vehicles and will not be available to waste disposal vehicles except on a limited or emergency basis. It will be necessary to provide an extensive improvement to the existing entrance and access road to the site. The plans indicate the grading and surfacing that will be required to provide an all weather access road to all of the fill areas on the site.

V. SUBSOIL CONDITIONS

A preliminary sub-soil investigation has been conducted at this site by Layne-Western Company, 225 Grand Avenue, Kirkwood, Missouri. A letter report and logs of the holes which summarize field and laboratory tests results are appended to this report.

Significant features of this soils report that affect the design and operation of Phase "A" of the project include the description of the material that will be obtained from the cut area. Borings 1 and 2 represent the soils that will be excavated. It should be noted that the predominate material consists of fine sand with cohesive layers or fine silty sand. This material is considered to be satisfactory for use both as daily cover and final cover for the project.

Water levels made at the time of the borings indicate that the free water level is in the range of 15 to 21 feet below the ground surface which is approximately an elevation in the range of 395 to 400. These borings were made during the month of January which is normally the season of the year when the water table is at its highest elevation, therefore, ground water problems are not anticipated in excavating to the depths indicated on the plans.

V. SUBSOIL CONDITIONS - continued

It should be noted that only three borings were drilled on this site at the time because these were the only areas that were accessible to a truck mounted drill rig. There was standing water in the low area on both the east and west side of the site making these areas inaccessible to the drill rig. It is recommended that during the dry season of the year and as construction progresses that additional holes, either hand auger or machine, be drilled in order to determine the types of material that will be available for cover and for future use in designing the ultimate use of the property.

The three preliminary borings indicate that for structures having moderate to heavy column loading, a footing type foundation would not be satisfactory on the existing natural ground because of the loose nature of the cohesionless materials and because soft or compressible nature of the cohesive materials encountered at the site. It is anticipated that a pile foundation would presently be required to support the structural loads of such a building. The construction of a land reclamation project will not alter the type of foundation required for construction of buildings. A pile foundation will be required if a heavily loaded structure is to be placed at the site after completion of the fill.

When the ultimate use of the property has been established and building locations are designated, it is recommended that additional soil borings be made to determine pile lengths and design capacities. If the site is to be used as a parking area, storage area or transfer area without buildings, the base course and surfacing can be placed on the completed fill after consolidation of the fill material has occurred. It is anticipated that the maximum time for this consolidation to occur will be on the order of five years.

VI. FEASIBILITY

An analysis of the site condition, including access, drainage, topography, soil conditions, availability of utilities and site location indicate that this land reclamation project is feasible.

The use of solid and sanitary waste, as a primary source of fill material coupled with daily and final cover material excavated from the site will accomplish the final grades shown on the plans.

Proper construction of the landfill will result in a finished grade at this site that will match the existing railroad yard and U. S. Route 40 in a manner that will increase the useability of the property.

The surface drainage of the completed area will be improved and the danger of flooding of this property will be completely eliminated by the reclamation project.

VII. RECOMMENDED OPERATIONAL PROCEDURES

a) DESIGNATION OF SITE USE AREAS

Sheet 3 of the plans indicates a recommended procedure for use in developing the reclamation project. The site has been divided into several sub-areas which designate the types of operation that are anticipated in Phase "A" of the reclamation project. These operations require areas for solid waste disposal, a salvage area, three dry weather sanitary fill areas and a wet weather sanitary fill area.

Boundaries between these areas can be moved slightly to provide for the volumes of materials that would be included under these several headings without disrupting the overall plans for the project.

b) EXCAVATION

A major portion of the earth materials that will be used for daily cover and final cover will be derived from an excavation area roughly bounded by the access road on the north and west, the road along the railroad on the south and station 8+00W on the east. This excavation will result in the availability of about 150,000 yards of earth material that can be used for the construction of the dike around the site, daily cover in most of the area requiring this type of cover and final cover over the eastern two thirds of the site.

The cross section drawings that accompany the plans indicate a method of drainage of this excavation, it consists essentially of a ditch or drainage way along base line "A" from station 8 to station 17+50 west, this drainage ditch will drain to the west and will be carried under the access road through a pipe that has an invert at elevation 401 on the south side of the road, and elevation 400 on the north side. The runoff will then be carried in an open ditch to the existing 12 inch pipe located at approximately station 6+00 north which discharges into the ditch maintained by the levee district. It will be necessary to maintain drainage along base line "A" during the construction operation of the dry weather sanitary fill in areas 1 and 2.

West Sanitary Fill Area and Dry Sanitary Fill Area III located north of the access road will have natural drainage into the levee district drainage ditch. This drainage should be maintained throughout the construction operation

c) CONSTRUCTION OF DIKE

Early in the construction operations, it is recommended that a dike be constructed around the area. This dike is necessary to prevent flooding

VII. RECOMMENDED OPERATIONAL PROCEDURES - continued

c) CONSTRUCTION OF DIKE - continued

of the area during high runoff in the two creeks, and to screen the area from the public traveling on Highway 40. It is essential that the lower portion of the dike which will become a portion of the completed fill project be compacted in accordance with the requirements of good construction procedure. This dike shall be compacted to a density equal to 90 percent of standard proctor density and the moisture content at the time of placement should be within 3 percent of the optimum value for compaction. The dike should be compacted in thin lifts not to exceed 10 inches in loose thickness and each layer should be compacted prior the placement of subsequent material. The portion of the dike that will extend above final grade will be used as a source of material for the final two feet of top cover over the area, therefore, it will not be necessary to compact the portion of the dike that extends above the final grade shown on the plans. The requirements for shaping and seeding the exterior surface of the dike have been specified in the construction specifications.

d) SURCHARGE LOADING

In order to carry out an orderly procedure of excavation it will be necessary to remove the excavated material from the Dry Weather Sanitary Area designated as area II. It will be necessary to stock pile material made from this excavation for future use as daily cover and has final covers throughout the site. This material should be placed in a uniform layer over the area designated as Dry Weather Sanitary Area I. The excavated material should be placed to a depth of approximately 8 feet for the purpose of accelerating the consolidation of the waste material that is buried in this area. The primary purpose for this recommendation is to make this area available for construction by the Pennsylvania Railroad prior to completion of the entire Phase "A" of the project. The use of a surcharge in this manner will accelerate the settlements and reduce the settlements subsequent to the removal of the surcharge.

e) FINAL DRAINAGE

The technique for achieving final drainage at this site is developed on the plans which indicate the final contours of the completed land reclamation project. The essential features of the drainage on the final plans consist of a drainage ditch along both sides of the access road, a drainage ditch on the north side of the road along the railroad tracks, and a drainage ditch that slopes to the two creeks from the entrance of access road at Route 40. The final contours of the site have been designed in such a manner that the flow into each of these ditches will be approximately equal.

f) SPECIFICATIONS

The specifications appended to this report have been prepared in accordance

VII. RECOMMENDED OPERATIONAL PROCEDURES - continued

f) SPECIFICATIONS - continued

with the provisions of Illinois statutes for operation of a sanitary landfill. Each of these specifications has a specific purpose and should be carefully complied with at all times during the construction operation. The conditions and requirements depicted on the plans and cross sections are to be considered a part of the construction specifications and requirements.

g) EQUIPMENT REQUIREMENTS

The equipment requirements necessary for the completion of the project have been reviewed and the recommended list includes the items listed below.

1. A D-8 dozer with blade for spreading and compacting fill material.

2. A D-8 dozer with an end loader for compacting material and excavating and loading daily cover.

3. An 18 yard scraper for excavating and hauling cover material.

4. A dump truck having a capacity of 5 yards or more.

Additional equipment may be required to comply with the requirements of the specifications if the volume of material hauled to the site daily exceeds the capacity of the equipment listed above.

For final cover operations it may be necessary to obtain the use of additional hauling equipment.

SPECIFICATIONS

I. GENERAL

a) The report and its appendix, the specifications, and the accompanying plans are intended to describe a completed work and to require compliance, during the operation, with the laws of the State of Illinois pertaining to Refuse Disposal Sites and Facilities.

b) All work shall be done in strict accordance with the plans, specifications, and the engineering report.

INSPECTION

a) Periodic inspections of the operation of the project shall be made by qualified persons for the purpose of evaluating compliance with the plans and specifications. A written report of each inspection will be filed with Metro Disposal Systems, Inc.

b) Instructions resulting from these inspections will become a part of the specifications if not already covered therein.

II. PROHIBITED ACTIVITIES

The following activities shall be prohibited:

a) Scavenging
b) Feeding of animals
c) Deposition of refuse in standing water
d) Unapproved burning

III. SALVAGE OPERATION

Salvage operations conducted at the site of the land reclamation project shall comply with the following provisions:

a) All salvage operations shall be conducted in a sanitary manner.

b) Salvage operations shall be confined to the area designated on the plans which will be remote from the operating phase of the fill.

c) Salvage operations shall not interfere with or otherwise delay the fill operation.

d) All salvage material shall be removed from the landfill site daily, or properly stored such that they will not create a nuisant, rat harborage, or unsightly appearance.

IV. SERVICE FACILITIES

The service facilities and the office building shall be started as soon as possible after the building area is constructed. Vehicles and equipment used in the construction operations shall be maintained and serviced in the service area.

V. LANDSCAPING OF THE DIKE

Screening the construction operations from view of traffic traveling on Route 40 shall be completed during the early stages of the project. The surface of the dike that is exposed to view from outside the fill area shall be carefully constructed to finished grade elevations, hand raked, fertilized, and seeded immediately after the construction is completed. The exposed surface of the dike shall be maintained in an acceptable manner throughout the life of the land reclamation project.

VI. SOLID WASTE DISPOSAL

Non-combustible and non-putrescible wastes such as materials resulting from construction, pavement breaking and demolition operations may be disposed of by open dumping in the designated solid waste areas. This area shall be leveled and spread at intervals sufficient to prevent unsightly appearance or rat harborage.

VII. SITE ACCESS

Access to the landfill shall be limited to those periods when an attendant or equipment operator is on duty. Hours of operation shall be displayed prominently at the entrance gate.

VIII. FIRE PROTECTION

If arrangements cannot be made with a nearby organized fire department to provide immediate service when called, a stockpile of earth shall be maintained near the working face of the fill. Fires shall be extinguished immediately.

IX. FIRST AID

First-aid supplies shall be maintained at the site at all times.

X. UNLOADING

Unloading of refuse to be covered on the site shall be in the smallest practicable area and shall be continuously supervised.

XI. FENCING

Portable fences shall be erected if necessary to prevent paper blowing from the site. The fill and surrounding area shall be policed regularly to collect all scattered material.

XII. SPREADING AND COMPACTING

Spreading and compacting shall comply with the following provisions:

a) Refuse shall be spread and compacted in shallow layers not greater than two to three feet in depth when compacted.

b) A completed cell shall consist of the refuse admitted and compacted during one working day. Individual lifts shall be no greater than four feet in depth and shall have minimum cover of six inches at the end of each day.

c) Surfaces of each lift shall be sloped toward the ditch at all times. Each layer of refuse shall be compacted after spreading with not less than four passes of a bulldozer of 30,000 pounds gross weight, or an equivalent compactor. Further compaction will be accomplished by establishing a traffic pattern in which delivery vehicles will travel over completed sections of sanitary landfill.

XIII. FINAL LANDSCAPING

After final cover has been placed on each area to the grade shown on the plans, and further vehicular traffic over the final cover is not anticipated, the area shall be fertilized and then seeded with a mixture of grasses.

File 403

Layne-Western Company
WATER SUPPLY SERVICES
WATER WELLS • LAYNE PUMPS • TEST DRILLING • WATER TREATMENT EQUIPMENT
225 Grand Avenue • Box 3766 • Kirkwood, Missouri 63122 • AC 314 965-3924

January 29, 1968

Mr. James B. Becker
Consulting Engineer
1919 Hampton Avenue
St. Louis, Missouri

Dear Mr. Becker:

Enclosed herewith are the logs for the three (3) exploratory holes that were drilled in the Pennsylvania Railroad Rose Lake Yard.

The holes were drilled at the locations specified by your Mr. Hurd who designated the type of sampling and sampling interval.

Tests performed in the laboratory consisted of unconfined compression tests on the cohesive samples and water content determinations on the cohesive samples and other samples that had an appreciable silt content. All of the samples were usually classified in the laboratory by an experienced technician. The results of the laboratory analysis are summarized on the logs.

Water level observations made at the time of drilling are indicated on the bottom of the logs. The static water level may be somewhat higher than indicated because of the time required for the water to establish a constant level in an open hole. Some of the boring locations were not accessible because of the presence of water ponded at the surface.

The results of the borings and tests indicate that the success of a footing type foundation at this site would be rather questionable. A more detailed study and analysis would be required to determine the most feasible type of foundation for a structure at this site. It would appear, based on the three (3) borings and a limited number of tests, that a pile type foundation would be required to support a structure that has column loads of any consequence.

RECORD OF SUBSURFACE EXPLORATION

BORING 1 CONTRACT 687

FOREMAN Fritz LOGGED BY Adams DATE STARTED 1/15/68 DATE COMPLETED

LOCATION Rose Lake Yark- Penn. R. R. BORING METHOD Auger CASING

NOTES	D	MC	TYPE	NO.	Qu	Qp	BLOWS	ELEV.	DESCRIPTION	DEPTH
									SURFACE	
									Brown silty clay	5
No Recovery			SS	1			9			
									Brown sandy silt	10
		25.8	SS	2	.96		8			
				3			3			15
		37.7	SS	4	.20		2		Gray clay with joints	20
		28.9	SS	5			2		Gray silty sand	25
		20.4	SS	6	.42		6			30
									END	

GROUND WATER DEPTH AT COMPLETION hole cored @ 15' • AFTER ____ HRS ____ • AFTER ____ HRS ____

SCALE 1" = 5'

LAYNE-WESTERN CO.

RECORD OF SUBSURFACE EXPLORATION

BORING 2 CONTRACT K-687

FOREMAN Fritz LOGGED BY Adams DATE STARTED 1/16/68 DATE COMPLETED

LOCATION Rose Lake Var, Penn. R. R. BORING METHOD Auger CASING

NOTES	D	MC	TYPE	NO.	Qu	Qp	BLOWS	ELEV.	DESCRIPTION	DEPTH
									SURFACE	
		20.8	ST	1					Fine tan sand with cohesive layers	5
		23.3	ST	2						10
			SS	3						15
		20.8	SS	4					Fine gray sand	20
		51.6	SS	5	.20				Gray clay	25
			SS	6					Medium to coarse gray sand.	30
									END	

GROUND WATER DEPTH AT COMPLETION 21' • AFTER ____ HRS. ____ • AFTER ____ HRS. ____

SCALE 1" = 5'

LAYNE-WESTERN CO.

RECORD OF SUBSURFACE EXPLORATION

BORING 3 CONTRACT K-687

FOREMAN Fritz LOGGED BY Adams DATE STARTED 1/16/68 DATE COMPLETED

LOCATION Rose Lake Yard, Penn. R. R. BORING METHOD Auger CASING

NOTES	D	MC	TYPE	NO.	Qu	Qp	BLOWS	ELEV.	DESCRIPTION	DEPTH
									SURFACE	
									Gray and black silty clay with roots	5
	62	43.2	ST	1	0.58					
									Gray sandy silty clay with roots	10
	76	31.4	ST	2	0.67					
										15
			SS	3					Brown fine to medium sand.	
										20
			SS	4					Brown medium to coarse sand.	
										25
			SS	5					Gray fine to medium sand.	
										30

GROUND WATER DEPTH AT COMPLETION 18' • AFTER HRS. • AFTER HRS.

SCALE 1" = 5'

LAYNE-WESTERN CO.

STATE OF ILLINOIS
DEPARTMENT OF
REGISTRATION AND
EDUCATION
JOHN C. WATSON
DIRECTOR
BOARD OF NATURAL
RESOURCES AND
CONSERVATION
CHAIRMAN
GEOLOGIST
ENGINEER
METEOROLOGIST
BIOLOGIST
FORESTER
UNIVERSITY REPRESENTATIVE

ILLINOIS STATE GEOLOGICAL SURVEY

NATURAL RESOURCES BUILDING
URBANA, ILLINOIS 61801

JOHN C. FRYE, CHIEF

February 28, 1968

Mr. C. W. Klassen
Chief Sanitary Engineer
Illinois Department of Public Health
Springfield, Illinois 62706

Dear Mr. Klassen:

Re: St. Clair County - Solid Waste Disposal
Fairmont City/Metro Disposal Corp.

This is in response to your letter of February 26 concerning a proposed sanitary landfill between old U.S. 40 and the Rose Lake Yards of the Pennsylvania Railroad in the SW¼, NE¼, Section 8, T. 2 N., R. 9 W., St. Clair County. No field inspection was made of the site, although the area was observed on October 31, 1967, during the investigation of another site. Three test borings were made at the site. Samples of the cores were not submitted to the Geological Survey for examination and testing; this would have been of considerable aid in the evaluation of the site.

The proposed site is in relatively low swampy ground which floods during periods of high water. The site is similar to the site reported on in our letter of November 6, 1967, for a site in Sections 6 and 7 (Brown #6). The surficial material is principally silty clay which coarsens with depth. The following log is the closest to the proposed site which is in our records:

SW¼, NW¼, Section 9, T. 2 N., R. 9 W.

Strata	Thickness	Depths
soil and clay	22	0-22
sand, very fine	21	22-43
sand, fine	10	43-53
sand, fine, silty	7	53-60
clay (?)	5	60-65
sand, fine to coarse	8	65-73
sand, coarse	11	73-84
sand, medium to coarse	9	84-93
sand	5	93-98
gravel	13	98-111
gravel, coarse	6½	111-117½

The main production is from the lower 60 to 80 feet of material in this region.

This well log agrees reasonably well with the data supplied in the report by Waste Disposal Consultants. Their report included three shallow borings; however, no locations were given for the borings to indicate which was which on the map. It is assumed that #1 is the westernmost boring drilled through the levee and #3 is the easternmost boring. No samples from these borings were submitted to the Geological Survey for tests or examination.

Boring #1, because of its location, probably is of little value. However, borings 2 and 3 suggest the top of the sand is at a depth of about 15 feet; this sand continues essentially to the base of the drift and is connected directly to the aquifer. Overlying the sand is a very soft mud, which at boring #3 is highly organic (possibly peat). This organic mud will afford some protection for the underlying aquifer from pollution. Much of this material is to be removed for cover. According to Mr. Clark of your office, the excavation will be to the minimum surface elevation of the area (397 feet) which would remove all but two feet of the cover over the sand at boring #3.

Many wells in this region are somewhat polluted at the present time. This is probably due primarily to industrial waste spilled on the land surface and industrial and sanitary waste disposal. This points to the fact that the aquifer in this area is relatively easy to pollute. Nevertheless the organic mud probably affords as good protection for the aquifer as is generally available in the bottom land area. The borings suggest that the top of the sand may lie just below or at the proposed excavation depths, in which case the aquifer will be easily and rapidly polluted by the fill.

In summary, the boring data supplied are inadequate for a thorough evaluation of the site for waste disposal, especially for control on the elevation of the top of the sand which forms the aquifer in the area. The data do suggest that excavation may be nearly to the top of the sand. The organic mud, if enough is left below the base of the fill, probably would afford moderate protection for the aquifer below. Therefore, the potential for pollution of the ground-water reservoir by the proposed landfill is moderate to high, depending upon the thickness of fine sediments (mud) below.

Very truly yours,

Keros Cartwright
Assistant Geologist
Section of Ground-Water Geology
and Geophysical Exploration

Reports, etc. returned to Mr. LaMear on March 4, 1968.

March 1, 1968

ST. CLAIR COUNTY - Solid Waste Disposal
Fairmont City/Metro Disposal Systems, Inc. (Proposed)

Mr. William P. [illegible]
Metro Disposal Systems, Inc.
403 Murphy Building
East St. Louis, Illinois 62201

Dear Sir:

This is to acknowledge the receipt and the review of your company's proposed solid waste disposal site located on the property owned by the Pennsylvania Railroad, known as the [illegible] Yards in St. Clair County, Illinois. On the basis of our review of the data submitted, we find the site to be satisfactory for use as a sanitary landfill.

However, it is suggested that additional information be provided to this office as to the type of equipment that will be used to pull the eighteen (18) yard scraper. It has been our observation that large landfill operations using slow crawler moving tractors have difficulty providing cover material to the refuse at frequent enough intervals so to complete the covering operation at the end of the day's activity.

Also, please complete and return the enclosed site registration forms in duplicate to this office as required by Section 2 of the Illinois Refuse Disposal Law.

In addition, it is requested that you make arrangements, at least one (1) week prior to beginning the operation of the site, to have this site inspected. It is expected that all operational requirements as outlined in the Illinois Rules and Regulations for Refuse Disposal Sites will be met. A copy is enclosed for your reference.

If questions arise or you need further clarification regarding this matter, please do not hesitate to contact this Department.

Very truly yours,

C. W. Klassen
Chief Sanitary Engineer

[illegible]
Encl.

cc's/- East Central Region
- Mr. J. B. Becker, Consultant
P. O. Box 246, Rolla, Missouri 65401